

installing a device which comprises the distribution unit connected for bi-directionally transmitting and receiving RF modulated video signals on a plurality of interconnected coaxial cables, the distribution unit comprising a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports for receiving the RF modulated video signals and unmodulated digital signals from each of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation; and

connecting each appliance to its associated coaxial cable through an associated one of a plurality of signal frequency filters, including a digital signal frequency filter having a frequency bandpass suitable to pass therethrough the unmodulated digital signals at a selected signal bit speed, and including an RF modulated video signal filter having a frequency bandpass suitable to bi-directionally pass therethrough the RF modulated broadcast television signals and the RF modulated video signals, each said filter being connected at a first terminal thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, each one of said filters providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally through the multi-drop signal distribution apparatus and between the associated appliance and the coaxial cable.

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13 37. (Fourth Amendment) A method for bi-directionally distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network comprised of single conductor coaxial cables interconnected through a distribution unit, and connected to the source through a plurality of single conductor coaxial cables, while simultaneously bi-directionally distributing signals exchanged between the

networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the method comprising:

installing a device which comprises the distribution unit for bi-directionally transmitting and receiving RF modulated video signals on a plurality of interconnected coaxial cables, the distribution unit comprising a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports, each signal port receiving the RF modulated video signals and unmodulated digital signals from an associated one of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation;

connecting each appliance to its associated coaxial cable through one of a plurality of signal frequency filters, each said filter being connected at a first terminal thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, said plurality of signal filters including digital signal frequency filters having a frequency bandpass substantially from zero hertz to 2.5 Megahertz, suitable to bi-directionally pass therethrough unmodulated digital signals between a digital signal appliance and the coaxial, said plurality of signal filters further including RF modulated video signal filters having a frequency bandpass greater than five megahertz, suitable to bi-directionally pass therethrough the RF modulated broadcast television signals and the RF modulated video signals between an RF modulated video signal appliance and the coaxial cable, each one of said video signal filters providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally therethrough between the associated appliance and the coaxial cable; and

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inserting an impedance matching network between the signal input and output (I/O) ports of each digital signal appliance and said first terminal of said associated digital signal frequency filter, said impedance matching network providing a terminating impedance value at said first terminal which approximates the cable characteristic impedance provided to said second terminal, thereby providing said bi-directional exchange of unmodulated digital signals at a minimum signal bit speed of substantially with minimum digital signal interference of the RF modulated video signals.

In accordance with 37 CFR 1.121(c), the following versions of the claims as rewritten by the foregoing amendment show all the changes made relative to the previous versions of the claims.

25. (~~Thrice Amended~~ Fourth Amendment) A method for bi-directionally distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network comprised of single conductor coaxial cables interconnected through a distribution unit, and connected to the source through the distribution unit and the plurality of single conductor coaxial cables, and simultaneously therewith bi-directionally distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cables having cable characteristic impedance, the method comprising:

installing a device which comprises the distribution unit connected for bi-directionally transmitting and receiving RF modulated video signals on a plurality of interconnected coaxial cables, the distribution unit comprising a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports for receiving the RF modulated video signals and unmodulated digital signals from each of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation; and

connecting each appliance to its associated coaxial cable through an associated one of a plurality of signal frequency filters, including a digital signal

frequency filter having a frequency bandpass suitable to pass therethrough the unmodulated digital signals at a selected signal bit speed, and including an RF modulated video signal filter having a frequency bandpass suitable to bi-directionally pass therethrough the RF modulated broadcast television signals and the RF modulated video signals, each said filter being connected at a first terminal thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, each one of said filters providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally through the multi-drop signal distribution apparatus and between the associated appliance and the coaxial cable.

37. (~~Thrice Amended~~Fourth Amendment) A method for bi-directionally distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network comprised of single conductor coaxial cables interconnected through a distribution unit, and connected to the source through a plurality of single conductor coaxial cables, while simultaneously bi-directionally distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the method comprising:

installing a device which comprises the distribution unit for bi-directionally transmitting and receiving RF modulated video signals on a plurality of interconnected coaxial cables, the distribution unit comprising a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports, each signal port receiving the RF modulated video signals and unmodulated digital signals from an associated one of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation;

connecting each appliance to its associated coaxial cable through one of a plurality of signal frequency filters, each said filter being connected at a first terminal thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, said plurality of signal filters including digital signal frequency filters having a frequency bandpass substantially from zero hertz to 2.5 Megahertz, suitable to bi-directionally pass therethrough unmodulated digital signals between a digital signal appliance and the coaxial, said plurality of signal filters further including RF modulated video signal filters having a frequency bandpass greater than five megahertz, suitable to bi-directionally pass therethrough the RF modulated broadcast television signals and the RF modulated video signals between an RF modulated video signal appliance and the coaxial cable, each one of said video signal filters providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally therethrough between the associated appliance and the coaxial cable; and

inserting an impedance matching network between the signal input and output (I/O) ports of each digital signal appliance and said first terminal of said associated digital signal frequency filter, said impedance matching network providing a terminating impedance value at said first terminal which approximates the cable characteristic impedance provided to said second terminal, thereby providing said bi-directional exchange of unmodulated digital signals at a minimum signal bit speed of substantially with minimum digital signal interference of the RF modulated video signals.